

Ifu

Atty. Docket No.: 4231/2055Q PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Choong-Chin Liew  
Serial No.: 10/816,357  
Filed: April 1, 2004  
Entitled: Method for the Detection of Asthma  
Related Gene Transcripts in Blood

Examiner: Switzer

Group Art Unit: 1634

Conf. No.: 1187

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8a**

I hereby certify that this correspondence (and any paper or fee referred to as being enclosed) is being deposited with the United States Post Office as First Class Mail on the date indicated below in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Kathleen Williams

Name of Person Mailing Paper

Signature of Person Mailing Paper

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL LETTER**

Enclosed for filing in the above-identified patent application, please find the following documents:

1. Information Disclosure Statement;
2. Form PTO-1449; and
3. Return Post Card.

The Commissioner for Patents is hereby authorized to charge any fees to Deposit Account No. 16-0085, Reference 4231/2055Q. A duplicate of this transmittal letter is enclosed for this purpose.

Respectfully submitted,

Date:

10/7/05

Kathleen Williams

Name: Kathleen Williams

Registration No.: 34,380

Customer No.: 29933

Palmer & Dodge LLP

111 Huntington Avenue

Boston, MA 02199-7613

Tel: 617-239-0100



Atty. Docket No.: 4231/2055Q

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Choong-Chin Liew  
Serial No.: 10/816,357  
Filed: April 1, 2004  
Entitled: Method for the Detection of Asthma  
Related Gene Transcripts in Blood

Examiner: Switzer

Group Art Unit: 1634

Conf. No.: 1187

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8a**

I hereby certify that this correspondence (and any paper or fee referred to as being enclosed) is being deposited with the United States Post Office as First Class Mail on the date indicated below in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Kathleen Williams

Name of Person Mailing Paper

*Kathleen Williams*

Signature of Person Mailing Paper

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §§ 1.56, 1.97 AND 1.98**

Dear Sir:

In accordance with the duty of disclosure under 37 CFR § 1.56, Applicant submits this Information Disclosure Statement pursuant to 37 CFR §§ 1.97 and 1.98 in the above-identified application for consideration by the Patent Office.

The attached Form PTO-1449 contains a listing of the cited documents. This application was filed after June 30, 2003, and copies of U.S. patents and U.S. patent applications are not required and are not enclosed. Accordingly, no copies are enclosed of documents numbered 1-28 on the attached Form PTO-1449.

No copies of foreign patent documents and non-patent literature which are listed on the attached Form PTO-1449 are enclosed as they have been previously submitted to the United States Patent and Trademark Office on an IDS or a supplemental IDS filed in the related U.S. patent applications of 10/268,730 and/or 10/601,518. Accordingly, no copies are enclosed of documents numbered 29-104 of the attached Form PTO-1449, since these documents were

Attorney Docket: 4231/2055Q  
U.S. Serial No. 10/816,357

were submitted previously with an IDS or a supplemental IDS filed in a related application. Specifically, no copies are enclosed of foreign patent documents numbered 29-35 and other documents numbered 48-70 and 72-87 since these documents were submitted previously with an IDS or a supplemental IDS filed in application serial number 10/268,730. Further, no copies are enclosed of foreign patent documents numbered 36-47 and other documents numbered 71 and 88-104, since these documents were submitted previously with an IDS or a supplemental IDS filed in application serial number 10/601,518.

Pursuant to CFR § 1.97(b)(3), because this Statement is being submitted before the first Office Action on the merits, no fee is required.

Applicant does not intend to represent that any of the documents submitted herein are material prior art to this invention or that the list represents an exhaustive search of documents related to this invention.

Applicant respectfully requests that the documents submitted herein be considered and made of record in this application.

Respectfully submitted,

Date: 10/7/05



Name: Kathleen Williams

Registration No.: 34,380

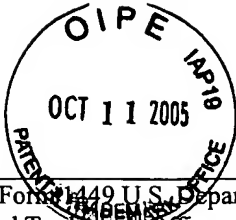
Customer No.: 29933

Palmer & Dodge LLP

111 Huntington Avenue

Boston, MA 02199-7613

Tel: 617-239-0100



USPTO Form 1449 U.S. Department of Commerce Patent and Trademark Office				Attorney Docket No. 4231/2055Q		Serial No. 10/816,357	
INFORMATION DISCLOSURE STATEMENT				Applicant(s): Choong-Chin Liew			
				Filing Date: April 1, 2004		Group: 1634	
U.S. PATENT DOCUMENTS							
Examiner Initial		Patent No.	Date	Name	Class	Subclass	Filing Date
	1	6,190,857	February 20, 2001	Ralph et al.			
	2	6,218,529	April 17, 2001	An et al.			
	3	6,277,574	August 21, 2001	Walker, et a.			
	4	5,853,996	December 29, 1998	Mordechai, et al.			
	5	6,251,590	June 26, 2001	Schweighoffer et al.			
	6	5,882,864	March 16, 1999	An et al.			
	7	5,942,385	August 24, 1999	Hirth			
	8	6,479,263	November 12, 2002	Slawin et al.			
	9	6,048,709	April 11, 2000	Falb et al.			
	10	6,124,433	September 26, 2000	Falb, et al.			
	11	6,486,299	November 26, 2002	Shimkets			
	12	6,525,185	February 25, 2003	Fan, et al.			
	13	5,352,775A	October 4, 1994	Albertson et al			
	14	5,837,449	November 17, 1998	Monia et al.			
	15	2003/0104393 A1	June 5, 2003	Sharp, Frank R. et al.			
	16	6,642,002	November 4, 2003	Loyd, et al.			
	17	6,630,301	October 7, 2003	Gocke, et al.			
	18	6,692,916	February 17, 2004	Bevilacqua et al.			
	19	6,521,420	February 18, 2003	Herman, et al.			

	20	2003/0224374	December 4, 2003	Dai, HongYue et al.			
	21	2002/0142981	October 3, 2002	Horne, Darci T. et al.			
	22	2003/0180743	September 25, 2003	Nagasu et al.			
	23	2004/0121390	June 24, 2004	Sharma et al.			
	24	5,739,432	April 4, 1998	Sinha			
	25	6,607,898	August 19, 2003	Kopreski, et al.			
	26	6,617,170	September 9, 2003	Augello, et al.			
	27	5,352,775	October 4, 1994	Albertson et al..			
	28	5,837,449	November, 17, 1998	Monia et al.			

## FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Publication Date	Country	Class	Subclass	Translation	
							Yes	No
	29	DE 44 35 919 C	07 DEC 1995	GERMA NY				
	30	EP 0 534 640 A	31 MAR 1993	EPO				
	31	JP 09 187299	22 JUL 1997	JAPAN				
	32	WO 98/18906	07 MAY 1998	PCT				
	33	WO 98/24935	11 JUN 1998	PCT				
	34	WO 98/33942	06 AUG 1998	PCT				
	35	WO 98/49342	05 NOV 1998	PCT				
	36	WO/01/25473	04/12/2001	PCT				
	37	WO/03/040404	05/15/2003	PCT				
	38	WO/02/14547	Feb. 21, 2002	PCT				
	39	WO/03/061564	July 31, 2003	PCT				
	40	WO/03/086445	October 23, 2003	PCT				
	41	WO/02/074986	September 26, 2002	PCT				
	42	WO/02/103320	December 27, 2002	PCT				
	43	WO/02/057414A2	July 25, 2002	PCT			Front Page and	

							Abstract Only	
	44	WO/03/008647	01/30/2003	PCT				
	45	WO/03/090694	11/06/2003	PCT				
	46	WO/03/072827	09/04/2003	PCT				
	47	WO/04/061410	07/22/2004	PCT				
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)								
	48	Claudio, J.O. et al. (1998) <i>Genomics</i> 50:44-52						
	49	Chelly J et al. (1989). <i>Proc. Nat. Acad. Sci. USA.</i> 86:2617-2621						
	50	Chelly J et al. (1988). <i>Nature</i> 333:858-860.						
	51	Drews J & Ryser S (1997). <i>Nature Biotech.</i> 15:1318-9.						
	52	Ferrie RM et al. (1992). <i>Am. J. Hum. Genet.</i> 51:251-62						
	53	Fu D-J et al. (1998). <i>Nat. Biotech</i> 16: 381-4.						
	54	Gala JL et al. (1998). <i>Clin. Chem.</i> 44(3):472-81.						
	55	Geisterfer-Lowrance AAT et al. (1990). <i>Cell</i> 62:999-1006.						
	56	Grodén J et al. (1991). <i>Cell</i> 66:589-600.						
	57	Jandreski MA & Liew CC (1987). <i>Hum. Genet.</i> 76:47-53.						
	58	Jin O et al. (1990). <i>Circulation</i> 82:8-16						
	59	Kimoto Y (1998). <i>Mol. Gen. Genet</i> 258:233-239.						
	60	Koster M et al. (1996). <i>Nat. Biotech</i> 14: 1123-8						
	61	Liew & Jandreski (1986). <i>Proc. Nat. Acad. Sci. USA.</i> 83:3175-3179						
	62	Liew CC et al. (1990). <i>Nucleic Acids Res.</i> 18:3647-3651.						
	63	Liew CC (1993). <i>J Mol. Cell. Cardiol.</i> 25:891-894						
	64	Liew CC et al. (1994). <i>Proc. Natl. Acad. Sci. USA.</i> 91:10645-10649						
	65	Liew et al. (1997). <i>Mol. and Cell. Biochem.</i> 172:81-87.						
	66	Niimura H et al. (1998). <i>New Eng. J. Med.</i> 338:1248-1257						
	67	Ogawa M (1993). <i>Blood</i> 81:2844-2853						
	68	Riccie et al. (1997) <i>Neuroscience Letters</i> 229:130-134						
	69	Santoro IM & Groden J (1997). <i>Cancer Res.</i> 57:488-494.						
	70	Yuasa T et al. (1998). <i>Japanese J. Cancer Res.</i> 89:879-882						
	71	Marshall KW (1996) <i>Journal of Rheumatology</i> 23(4):582-585						
	72	Campbell, C.; Vernon, S.D; Karem, K.L. Nisenbaum, R. Unger, E.R.(2002) <i>Assessment of Normal Variability in Peripheral Blood Gene Expression. Disease Markers</i> , 18:201-206						
	73	Yoshikai et al., "Genomic Organization of the Human Amyloid Beta-Precursor Gene" <i>Gene</i> 87:257-263 (1990)						
	74	GENBANK AC:V00565, March 1995; Bell et al.: "Sequence of the Human Insulin Gene" (XP002141055)						
	75	GENBANK AJ:003147, December 1998, Bernot et al., "A Transcriptional Map of the FMF Region" (XP002141057)						
	76	GENBANK AC:M73548, January 1995, Joslyn et al., "Identification of Deletion						

		Mutations and Three New Genes at the Familial Polyposis Locus" (XP002141058)
	77	GENBANK AC:X52889, September 1993, Liew, "Complete Sequence and Organization of the Human Cardiac Beta-Myosin Heavy Chain Gene" (XP002141056)
	78	GENBANK AC:M54947, April 1993, Seidman et al., "Molecular Studies of the Atrial Natriuretic Factor Gene" (XP002141054)
	79	Nagai et al. "Decrease of the D3 dopamine receptor mRNA expression in lymphocytes from patients with Parkinson's disease," <i>Neurology</i> 46:791-795 (1996)
	80	Mattano et al. "Sensitive Detection of rRare Circulating Neuroblastoma Cells by the Reverse Transcriptase-Polymerase Chain Reaction <i>Cancer Research</i> 52:4701-4705 (1992)
	81	Katz et al. "Molecular Staging of Prostate Cancer with the Use of an Enhanced Reverse Transcriptase-PCR Assay" <i>Urology</i> 43(6):765-775 (1994)
	82	Burchill et al. "Neuroblastoma cell detection by reverse transcriptase-polymerase chain reaction (RT-PCR) for tyrosine hydroxylase mRNA" <i>Int. J. Cancer</i> 57:671-675 (1994)
	83	Johnson PWM et al. "The molecular detection of circulating tumor cells", <i>British Journal of Cancer</i> 72:268-275 (1995), PAGES 268-276
	84	Seiden et al. Detection of Curculating Tumor Cells in Men with Localized Prostate Cancer <i>Journal of Clinical Oncology</i> 12(12):2634-2639 (1994)
	85	Moreno J.G. et al. "Detection of Hematogenous Micrometastasis in Patients with Prostate Cancer" <i>Cancer Research</i> 52:6110-6112 (1992)
	86	Hannon et al. NCCLS "Blood Collection on Filter Paper for Newborn Screening Programs; Approved Standard—Fourth Edition—NCCLS document LA4-A4 [ISBN 1-56238-503-8] NCCLS, 940 West Valley Road, Suite 1400, Wayne Pennsylvania 19087 USA (2003) Vol. 23 No.21. Pages 1-31
	87	Ernst et al. NCCLS "Procedures and Devices for the Collection of Diagnostic Capillary Blood Specimens; Approved Standard—Fifth Edition. NCCLS document H4-A5 [ISBN 1-56238-538-0] NCCLS, 940 West Valley Road, Suite 1400, Wayne Pennsylvania 19087 USA (2004) Vol. 24 No.21. Pages 1-47
	88	Kopreski Michael, S. et al. August 1999, "Detection of Tumor Messenger RNA in the Serum of Patients with Malignant Melanoma", <i>Clinical Cancer Research</i> Vol 5: 1961-1965
	89	Vernon, S.D. et al; (2002) "Utility of the Blood for Gene Expression and Profiling and Biomarker Discovery in Chronic Fatigue Syndrome, <i>Disease Markers</i> , 18: 193-199
	90	Dasi, Francisco et al. (May 2001) <i>Real-Time quantification in plasma of human telomerase reverse transcriptase (hTERT) mRNA: A simple blood test to monitor disease in cancer patients</i> . <i>Laboratory Investigation</i> , Vol. 81, No. 5, p.767-769,
	91	Fleischhacker, Michael et al. (Sept 2001) <i>Detection of Amplifiable Messenger RNA in the Serum of Patients with Lung Cancer</i> <i>Annals. N Y Acad Sciences</i> 945:179-188
	92	Gal, Shira et al. (Sept 2001) <i>Detection of Mammaglobin mRNA in the Plasma of Breast Cancer Patients</i> <i>Annals, N Y Acad Sciences</i> , 945:192-194
	93	Zhang, H.Q., Lu, H., Enosawa, S. Takahara, K. Sakamoto, T. Nakjima, H. S. and Suzuki, S. (2002) <i>Microarray analysis of Gene Expression in Peripheral Blood Mononuclear Cells Derived from Long-Surviving Renal Recipients</i> , <i>Transplantation Proceedings</i> 34 1757-1759
	94	Baechler, E.C., Batliwalla, F. M., Karypis, G. Gaffney, P.M.; Ortmann, W.A. Espe, K.J., Shark, K.B., Grande W. J. Hughes, K.M., Kapur, V., Gregersen, P.K.

		and Behrens, T.W. (March 4, 2003) <i>Interferon-inducible gene expression signature in Peripheral Blood Cells of Patients with Severe Lupus</i> . PNAS 100 (5):2610-5.
	95	Lo, Y.M. Dennis (2001 Sept.) <i>Circulating Nucleic Acids in Plasma and Serum: An Overview</i> , Ann N Y Acad Scien 945: 1-7
	95	Ng, Enders K.O., Tsui, N.B.Y., Lam, NYL, Chiu, R.W.K., Yu, S.C.H., Wong, S.C.C., Lo, E.S.F., Rainer, T.H., Johnson, P.J., and Lo, Y.M.D. (August, 2002) <i>Presence of Filterable and Nonfilterable mRNA in the Plasma of Cancer Patients and Healthy Individuals</i> . Clin. Chem. 48(8):1212-1217
	96	Mengelle, C. Sandres-Saune, K. Pasquier, C. Rostaing, L. Mansuy, J-M, Marty, M. Da Silva, I., Attal, M., Massip, P. and Izopet, J. (Aug 2003) <i>Automated Extraction and Quantification of Human Cytomegalovirus DNA in Whole Blood by Real-Time PCR Assay</i> . J. Clin. Microbiology, 41(8):3840-3845
	97	Samuel DePrimo et al. (2003) <i>Expression profiling of Blood Samples from an SU5416 Phase II Metastatic Colorectal Cancer Clinical Trial: A novel strategy for biomarker identification</i> . BMC Cancer, 3(3): 1-12
	98	Taback B. et al. (Dec 15, 2001) <i>Detection of Occult Metastatic Breast Cancer Cells in Blood by a Multimolecular Marker Assay: Correlation with Clinical Stage of Disease</i> . Cancer Research, 61:8845-8850
	99	Schuster R. et al. (2003) <i>Quantitative Real-Time RT-PCR for Detection of Disseminated Tumor Cells in Periphral Blood of Patients with Colorectal Cancer Using Different mRNA Markers</i> . Int. J. Cancer. 108:219-227
	100	Twine et al. (September 15, 2003) <i>Disease Associated Expression Profiles in Peripheral Blood Mononuclear Cells from Patients with Advanced Renal Cell Carcinoma</i> . Cancer Research, 63:6069-6075
	101	Vawter M. et al. (2004) <i>Microarray screening of lymphocyte gene expression differences in a multiplex schizophrenia pedigree</i> , Schizophrenia Research, 67 (2004):41-52
	102	Neumann et al. (Jan 2002) <i>Identification of differentially expressed genes in rheumatoid arthritis by a combination of complementary DNA array and RNA arbitrarily primed-polymerase chain reaction</i> . Arthritis Rheum. 46(1):52-63.
	103	Schwering, I. et al. (2003) <i>Profiling of Hodgkin's lymphoma cell line L1236 and germinal center B cells: identification of Hodgkin's lymphoma-specific genes</i> , Molecular Medicine, No. 3-4: 85-95
	104	Martin, K. et al (2001) <i>High-sensitivity array analysis of gene expression for the early detection of disseminated breast tumor cells in peripheral blood</i> Proceedings of National Academy of Sciences, Vol. 98, No. 5: 2646-2651
EXAMINER		DATE CONSIDERED
<p>*EXAMINER: Initial reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.</p> <p>** Copies of references not provided at the time of this submission.</p>		